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(54) Title: EMULSIFIER BLEND REPLACEMENT FOR NATURAL SODIUM SULFONATES IN METALWORKING APPLICATIONS

(57) Abstract: Synthetic alkyl arenesulfonates in combination with the salt of a coupled reaction product of (A)(I) high-molecular weight polycarboxylic acylating agent, said acylating agent (A)(I) having at least one hydrocarbyl substituent having an average of from about 20 to about 500 carbon atoms, and at least one (B)(I) low-molecular weight polycarboxylic acylating agent, said acylating agent (B)(I) optionally having at least one hydrocarbyl substituent having an average of about 6 to about 19 carbon atoms, being coupled together by (C) at least one compound having (i) two or more primary amino groups, (ii) two or more secondary amino groups, (iii) at least one primary amino group and at least one secondary amino group, (iv) at least two hydroxyl groups or (v) at least one primary or secondary amino group and at least one hydroxyl group. These salt compositions are useful as emulsifiers in oil-in-water emulsions useful as functional fluids.

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